10/518,074

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=> d his; d l12 tot ibib abs hitstr

     (FILE 'HOME' ENTERED AT 10:23:03 ON 13 SEP 2007)

     FILE 'REGISTRY' ENTERED AT 10:23:16 ON 13 SEP 2007
L1               SCREEN 964 AND 1006 AND 1015 AND 1051
L2               SCREEN 964 AND 1006 AND 1015 AND 1051
L3               STRUCTURE UPLOADED
L4               QUE L3 AND L2
L5             7 S L4 FUL

     FILE 'CAPLUS' ENTERED AT 10:24:34 ON 13 SEP 2007
L6           187 S L5

     FILE 'STNGUIDE' ENTERED AT 10:24:35 ON 13 SEP 2007

     FILE 'CAPLUS' ENTERED AT 10:24:38 ON 13 SEP 2007

     FILE 'STNGUIDE' ENTERED AT 10:25:07 ON 13 SEP 2007

     FILE 'CAPLUS' ENTERED AT 10:27:10 ON 13 SEP 2007
L7         51778 S SENSORY?/IA
L8             2 S L6 AND L7
L9            20 S L5/THU
L10           80 S L5/P
L11         2652 S ISOBUTYLAMINE/IA
L12           14 S L10 AND L11
L13       795359 S CAT/Q
L14            1 S L10 AND L11 AND L13

     FILE 'STNGUIDE' ENTERED AT 10:29:37 ON 13 SEP 2007

     FILE 'CAPLUS' ENTERED AT 10:29:39 ON 13 SEP 2007

     FILE 'STNGUIDE' ENTERED AT 10:29:40 ON 13 SEP 2007

YOU HAVE REQUESTED DATA FROM FILE 'CAPLUS' - CONTINUE? (Y)/N:y


L12  ANSWER 1 OF 14  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2005:303398  CAPLUS <<LOGINID::20070913>>
DOCUMENT NUMBER:          142:378895
TITLE:                    Conjugated dienamides from Piper species for imparting
                          aroma, taste, and chemesthetic effects
INVENTOR(S):              Dewis, Mark L.; John, Thumplasseril V.; Eckert, Markus
                          A.; Colstee, Jan Herman; Da Costa, Neil C.; Pei, Tao
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 22 pp., Cont.-in-part of U.S.
                          Ser. No. 678,558.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    ---------------------    --------
     US 2005075368         A1    20050407    US 2004-919631           20040817
     US 2005074533         A1    20050407    US 2003-678558           20031003
     IN 2004DE01840        A     20060922    IN 2004-DE1840           20040927
```

BR 2004004249	A	20050628	BR 2004-4249	20040929
EP 1520850	A2	20050406	EP 2004-256086	20041001
EP 1520850	A3	20050713		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
CN 1736980	A	20060222	CN 2004-10083517	20041008
PRIORITY APPLN. INFO.:			US 2003-678558	A2 20031003
			US 2004-919631	A 20040817

OTHER SOURCE(S): MARPAT 142:378895

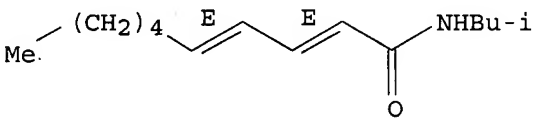
AB Described are mixts. of at least four of the alkadienamides or compns. containing substantial concns. of such mixts., prepared according to novel processes: (a) extraction of a ground substantially dried fruit of one of the Piper species, Piper longum Linn or Piper peepuloides; (b) natural product-forming synthesis; or (c) synthetic product-forming synthesis. Also described are uses of the thus-formed products for augmenting, enhancing or imparting an aroma, taste, chemesthetic effect and/or antibacterial effect in or to a consumable material and/or in the oral cavity and/or on the mammalian epidermis. Examples amides obtained from Piper and synthesized are N-isobutyl-E2,E4-decadienamide and N-isobutyl-E2,E4-undecadienamide. Shampoos were prepared containing fragrances and alkene diamide mixts.

IT 18836-52-7P
RL: FFD (Food or feed use); NPO (Natural product occurrence); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); USES (Uses)
(conjugated dienamides from Piper species for imparting aroma, taste, and chemesthetic effects)

RN 18836-52-7 CAPLUS

CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



L12 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:301755 CAPLUS <<LOGINID::20070913>>

DOCUMENT NUMBER: 142:372916

TITLE: Conjugated alkadienamides, methods of production, and use in food, cosmetics, and health care products

INVENTOR(S): John, Thumplasseril V.; Eckert, Markus A.; Dewis, Mark L.; Colstee, Jan Herman; Da Costa, Neil C.

PATENT ASSIGNEE(S): International Flavors & Fragrances Inc., USA

SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1520850	A2	20050406	EP 2004-256086	20041001
EP 1520850	A3	20050713		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				

US 2005074533	A1	20050407	US 2003-678558		20031003
US 2005075368	A1	20050407	US 2004-919631		20040817
PRIORITY APPLN. INFO.:			US 2003-678558	A	20031003
			US 2004-919631	A	20040817

OTHER SOURCE(S): MARPAT 142:372916

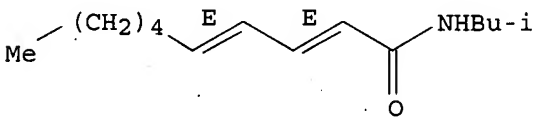
AB Mixts. of at least four of the alkadienamides (R = C1-2 alkyl; R1 = 2-Me-1-Pr; R2 = H; or R1 and R2 taken together is a (CH2)n moiety, where n = 4 or 5) or compns. containing substantial concns. of such mixts. are applicable in food, cosmetics, or health care products. The alkadienamides are obtained by (a) extraction of a ground dried fruit of Piper longum and(or) Piper peepuloides; (b) natural product-forming synthesis; or (c) synthetic product-forming synthesis. Thus, an alkadienamide mixture may contain N-isobutyl-E2,E4-decadienamide, N-isobutyl-E2,E4-undecadienamide, and pyrrolidyl and piperidyl analogs. The products are used for augmenting, enhancing or imparting an aroma, taste, chemesthetic effect and(or) antibacterial effect in or to a consumable material and(or) in the oral cavity and(or) on the mammalian epidermis.

IT 18836-52-7P
RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugated alkadienamides, methods of production, and use in food, cosmetics, and health care products)

RN 18836-52-7 CAPLUS

CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



L12 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:123712 CAPLUS <<LOGINID::20070913>>

DOCUMENT NUMBER: 143:405731

TITLE: Stereoselective enzymatic synthesis of cis-pellitorine, a taste active alkamide naturally occurring in tarragon. [Erratum to document cited in CA142:240234]

AUTHOR(S): Ley, Jakob P.; Hilmer, Jens-Michael; Weber, Berthold; Krammer, Gerhard; Gatfield, Ian L.; Bertram, Heinz-Juergen

CORPORATE SOURCE: Research & Development, Symrise GmbH and Co. KG, Holzminden, 37603, Germany

SOURCE: European Journal of Organic Chemistry (2005), (3), 618
CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

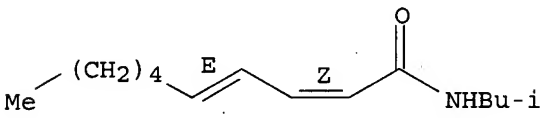
LANGUAGE: English

AB On page 5135, Introduction, sentence 1, the stereochem. descriptor in the compound name of 1a is incorrect. The correct name is (2E,4E)-N-isobutyldeca-2,4-dienamide.

IT 175288-20-7P
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(stereoselective enzymic synthesis of cis-pellitorine taste active alkamide naturally occurring in tarragon (Erratum))

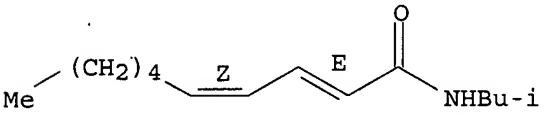
RN 175288-20-7 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2Z,4E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



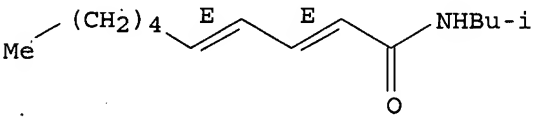
IT 639086-18-3P
RL: BPN (Biosynthetic preparation); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(stereoselective enzymic synthesis of cis-pellitorine taste active alkamide naturally occurring in tarragon (Erratum))
RN 639086-18-3 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4Z)- (CA INDEX NAME)

Double bond geometry as shown.



IT 18836-52-7P
RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(stereoselective enzymic synthesis of cis-pellitorine taste active alkamide naturally occurring in tarragon (Erratum))
RN 18836-52-7 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



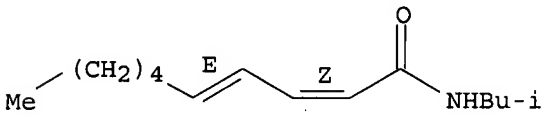
L12 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:11397 CAPLUS <<LOGINID::20070913>>
DOCUMENT NUMBER: 142:240234
TITLE: Stereoselective enzymatic synthesis of cis-pellitorine, a taste active alkamide naturally occurring in tarragon
AUTHOR(S): Ley, Jakob P.; Hilmer, Jens-Michael; Weber, Berthold; Krammer, Gerhard; Gatfield, Ian L.; Bertram, Heinz-Juergen
CORPORATE SOURCE: Research & Development, Symrise GmbH and Co. KG, Holzminden, 37603, Germany
SOURCE: European Journal of Organic Chemistry (2004), (24), 5135-5140
CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:240234

AB The alkamide cis-pellitorine [(2E,4Z)-N-isobutyldeca-2,4-dienamide] that occurs naturally in tarragon was prepared in yields up to 80% by lipase-catalyzed conversion of Et 2E,4Z-decadienoate, the so-called pear ester, and isobutylamine both with and without the use of cosolvents. Of 13 different com. enzyme prepns. tested (lipases, proteases, esterases), only the lipase type B from Candida antarctica has a suitable activity. The reaction of the different geometric isomers of Et 2,4-decadienoate to the appropriate pellitorines shows a remarkable selectivity: the 2E,4Z ester is converted between 1.4 and 3.9 times faster than the 2E,4E isomer, and the relative yield of cis-pellitorine compared with trans-pellitorine is 5.7 to 16.3 times higher. In contrast to the better known trans-pellitorine, which at 10 ppm is only slightly tingling and numbing, cis-pellitorine shows very interesting pungent and warming sensations after tasting trials already in low concns. of 10 ppm.

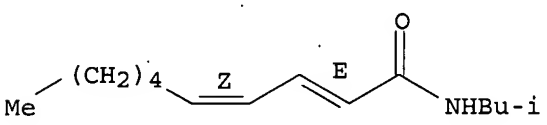
IT 175288-20-7P
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(stereoselective enzymic synthesis of cis-pellitorine taste active alkamide naturally occurring in tarragon)
RN 175288-20-7 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2Z,4E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



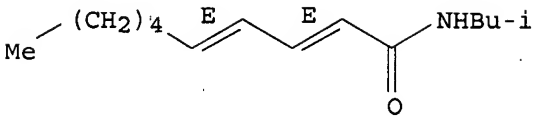
IT 639086-18-3P
RL: BPN (Biosynthetic preparation); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(stereoselective enzymic synthesis of cis-pellitorine taste active alkamide naturally occurring in tarragon)
RN 639086-18-3 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4Z)- (CA INDEX NAME)

Double bond geometry as shown.



IT 18836-52-7P
RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(stereoselective enzymic synthesis of cis-pellitorine taste active alkamide naturally occurring in tarragon)
RN 18836-52-7 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:428897 CAPLUS <<LOGINID::20070913>>
DOCUMENT NUMBER: 141:6843
TITLE: Preparation and use of trans-pellitorin as an aromatic substance with salivation-stimulating activity.
INVENTOR(S): Gatfield, Ian Lucas; Ley, Jakob Peter; Krammer, Gerhard; Bertram, Heinz-Juergen; Loenneker, Ilse; Machinek, Arnold
PATENT ASSIGNEE(S): Symrise G.m.b.H. & Co. K.-G., Germany
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

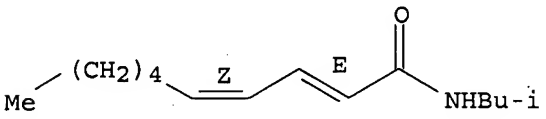
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004043906	A2	20040527	WO 2003-EP12686	20031113
WO 2004043906	A3	20041007		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10253331	A1	20040603	DE 2002-10253331	20021114
AU 2003283398	A1	20040603	AU 2003-283398	20031113
EP 1562893	A2	20050817	EP 2003-775352	20031113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1711234	A	20051221	CN 2003-80103209	20031113
JP 2006506479	T	20060223	JP 2004-551009	20031113
BR 2003016207	A	20060411	BR 2003-16207	20031113
US 2004241312	A1	20041202	US 2004-483668	20040727
PRIORITY APPLN. INFO.:			DE 2002-10253331 A	20021114
			WO 2003-EP12686 W	20031113

AB Use of 2E,4E-decadienoic acid isobutylamide (trans-pellitorin) (I) in the form of an aromatic substance, in particular a saliva stimulating aromatic substance for food, oral hygiene or gustatory prepns. is claimed. Thus, a mixture of Et 2E,4Z-decadienoate, Chirazyme L-2, and isobutylamine was heated at 55° for 4 days to give 99.4% 2E,4Z-decadienoic acid isobutylamide, which was stirred 1 h with iodine in PhMe to give I in >95% purity. I food and oral hygiene compns. are given.

IT 639086-18-3P
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

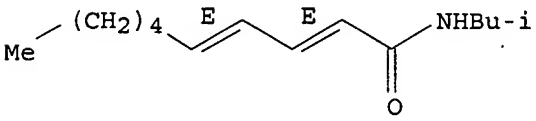
(preparation and use of trans-pellitorin as an aromatic substance with salivation-stimulating activity)
RN 639086-18-3 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4Z)- (CA INDEX NAME)

Double bond geometry as shown.



IT 18836-52-7P, trans-Pellitorin
RL: COS (Cosmetic use); FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and use of trans-pellitorin as an aromatic substance with salivation-stimulating activity)
RN 18836-52-7 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



L12 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:145036 CAPLUS <<LOGINID::20070913>>
DOCUMENT NUMBER: 136:320768
TITLE: Larvicidal activity of isobutylamides identified in Piper nigrum fruits against three mosquito species
AUTHOR(S): Park, Il-Kwon; Lee, Sang-Gil; Shin, Sang-Chul; Park, Ji-Doo; Ahn, Young-Joon
CORPORATE SOURCE: School of Agricultural Biotechnology, Seoul National University, Suwon, 441-744, S. Korea
SOURCE: Journal of Agricultural and Food Chemistry (2002), 50(7), 1866-1870
CODEN: JAFCAU; ISSN: 0021-8561
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The insecticidal activity of materials derived from the fruits of Piper nigrum against third instar larvae of Culex pipiens pallens, Aedes aegypti, and A. togoi was examined and compared with that of com. available piperine, a known insecticidal compound from Piper species. The biol. active constituents of P. nigrum fruits were characterized as the isobutylamide alkaloids pellitorine, guineensine, pipercide, and retrofractamide A by spectroscopic anal. Retrofractamide A was isolated from P. nigrum fruits as a new insecticidal principle. On the basis of 48-h LC50 values, the compound most toxic to C. pipiens pallens larvae was pipercide (0.004 ppm) followed by retrofractamide A (0.028 ppm), guineensine (0.17 ppm), and pellitorine (0.86 ppm). Piperine (3.21 ppm) was least toxic. Against A. aegypti larvae, larvicidal activity was more pronounced in retrofractamide A (0.039 ppm) than in pipercide (0.1 ppm), guineensine (0.89 ppm), and pellitorine (0.92 ppm). Piperine (5.1 ppm) was relatively ineffective. Against A. togoi larvae, retrofractamide A

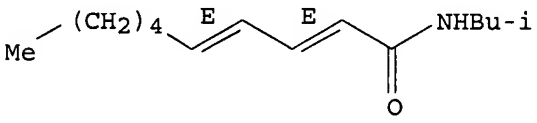
(0.01 ppm) was much more effective, compared with pipercide (0.26 ppm), pellitorine (0.71 ppm), and guineensine (0.75 ppm). Again, very low activity was observed with piperine (4.6 ppm). Structure-activity relationships indicate that the N-isobutylamine moiety might play a crucial role in the larvicidal activity, but the methylenedioxyphenyl moiety does not appear essential for toxicity.

IT 18836-52-7P, Pellitorine
RL: BUU (Biological use, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)
(mosquito larvicidal activity of isobutylamides from pepper)

RN 18836-52-7 CAPLUS

CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:41864 CAPLUS <<LOGINID::20070913>>

DOCUMENT NUMBER: 132:194239

TITLE: Ene reaction with Pummerer-type reaction intermediate of α-(methylthio)isobutyl acetamide: a new synthesis of pellitorine

AUTHOR(S): Ling-Ching, Chen; Iou-Jiun, Kang; Huey-Min, Wang

CORPORATE SOURCE: Graduate Institute of Pharmaceutical Sciences, Kaohsiung Medical College, Kaohsiung, 807, Taiwan

SOURCE: Journal of the Chinese Chemical Society (Taipei) (1999), 46(6), 963-966
CODEN: JCCTAC; ISSN: 0009-4536

PUBLISHER: Chinese Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 132:194239

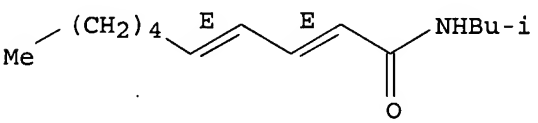
AB Pummerer-type reaction intermediate of α-(methylthio)isobutyl acetamide has been found to react with 1-alkenes to afford ene adducts. Pellitorine was synthesized from the adduct 2-methylthio-4-decenoic iso-Bu amide.

IT 18836-52-7P, Pellitorine
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of pellitorine via ene reaction with Pummerer-type reaction intermediate)

RN 18836-52-7 CAPLUS

CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

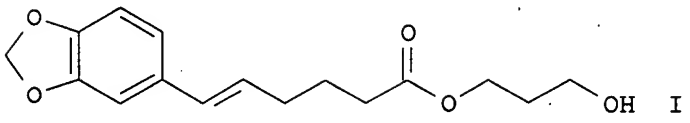
Double bond geometry as shown.



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:263930 CAPLUS <<LOGINID::20070913>>
DOCUMENT NUMBER: 125:33919
TITLE: Expedient synthesis of unsaturated amide alkaloids from Piper spp: exploring the scope of recent methodology
AUTHOR(S): Strunz, George M.; Finlay, Heather J.
CORPORATE SOURCE: Canadian Forest Service-Maritimes Region, Fredericton, NB, E3B 5P7, Can.
SOURCE: Canadian Journal of Chemistry (1996), 74(3), 419-32
CODEN: CJCHAG; ISSN: 0008-4042
PUBLISHER: National Research Council of Canada
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 125:33919
GI



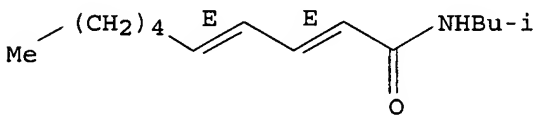
I

AB The Sakai aryl aldehyde-cyclic ketone aldol-Grob fragmentation sequence was extended to cinnamaldehyde and cyclohexanone, and the product was elaborated to analogs of the alkaloid piperstachine. The effects of substituents on the reaction involving cinnamaldehyde were studied. The aldol-fragmentation sequence failed with benzaldehyde when cyclooctanone or cyclobutanone was substituted for cyclohexanone or cyclopentanone, and the reasons for this failure were examined Four-carbon Wittig homologation of the piperonal-cyclobutanone aldol-fragmentation product, a hypothetical route to alkaloids such as retrofractamide A, was thus not viable. Instead, three-carbon homologation of the readily available piperonal-cyclopentanone product (I), previously prepared from piperonal, cyclopentanone and 1,3-propanediol in Et2O.BF3, afforded these alkaloids in excellent overall yield. Isomerization of alkynes to conjugated dienes was also used to effect efficient syntheses of pellitorine and several other non-aromatic 2E,4E-dienoic Piper amide alkaloids.

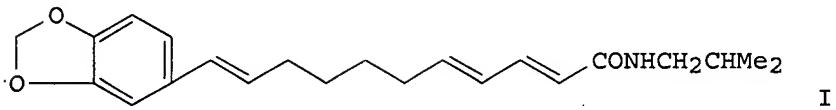
IT 18836-52-7P, Pellitorine
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of unsatd. amide alkaloids from Piper spp. based on aldol condensation-fragmentation sequence)

RN 18836-52-7 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



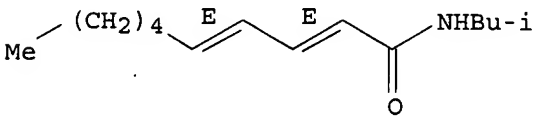
L12 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:119492 CAPLUS <<LOGINID::20070913>>
DOCUMENT NUMBER: 106:119492
TITLE: Stereoselective preparation of conjugated dienoates and dienamides. New synthesis of pellitorine and pipercide
AUTHOR(S): Bloch, Robert; Hassan-Gonzales, Dominique
CORPORATE SOURCE: Lab. Carbocycles, Univ. Paris-Sub, Orsay, 91405, Fr.
SOURCE: Tetrahedron (1986), 42(18), 4975-81
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 106:119492
GI



I

AB (E)- And (E,E)-conjugated dienoates and dienamides of high stereoisomeric purities are prepared via thermal SO2 extrusion from cis-2,5-disubstituted-2,5-dihydrothiophene 1,1-dioxides generated by a retro-Diels-Alder reaction. Applications of this method to the synthesis of two insecticidal natural dienamides: pellitorine and pipercide (I) and of Me tetradeca-2E,4,5-trienoate, an insect sex pheromone, are described.
IT 18836-52-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 18836-52-7 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

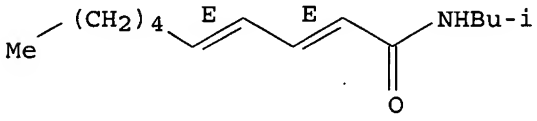
Double bond geometry as shown.



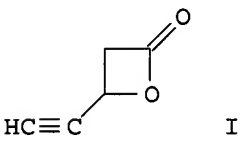
L12 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1983:612328 CAPLUS <<LOGINID::20070913>>
DOCUMENT NUMBER: 99:212328
TITLE: Total synthesis of sylvamide, a Piper alkamide
AUTHOR(S): Banerji, Avijit; Pal, Sudhir C.
CORPORATE SOURCE: Dep. Pure Chem., Calcutta Univ., Calcutta, 700009, India
SOURCE: Phytochemistry (Elsevier) (1983), 22(4), 1028-30
CODEN: PYTCAS; ISSN: 0031-9422
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The structure (E)-Me(CH2)4[CH(OH)]2CH:CHCONHCH2CHMe2 for sylvamide, from P. sylvaticum, was confirmed by its total synthesis from (E)-MeCH:CHCO2H in 7 steps. Spectral comparison of the natural and synthetic compds. showed that whereas the former is pure erythro isomer the latter is a racemic mixture

IT 18836-52-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and epoxidn. of)
RN 18836-52-7 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



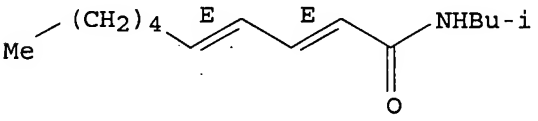
L12 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:549892 CAPLUS <<LOGINID::20070913>>
DOCUMENT NUMBER: 95:149892
TITLE: A novel five-carbon homologation leading to 3,4-alkadienoic acids by SN2' reaction of β-ethynyl-β-propiolactone with Grignard reagents in the presence of copper(I) catalyst
AUTHOR(S): Sato, Toshio; Kawashima, Masatoshi; Fujisawa, Tamotsu
CORPORATE SOURCE: Chem. Dep. Resour., Mie Univ., Mie, 514, Japan
SOURCE: Tetrahedron Letters (1981), 22(25), 2375-8
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 95:149892
GI



I

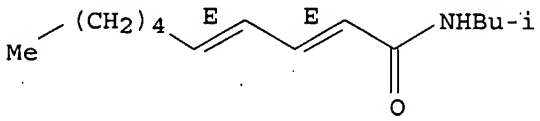
AB The title compound (I) reacted regioselectively with Grignard reagents in the presence of CuI catalyst to give 3,4-alkadienoic acids in high yields. E.g., I with BuMgBr (CuI, -78°, 1 h) gave 97% BuCH:C:CHCH2CO2H. This reaction was applied to the preparation of pellitorine, an insecticide from Anacyckus pyrethrum roots, from I and Me(CH2)5MgBr in 3 steps.
IT 18836-52-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by amidation of decadienoic acid)
RN 18836-52-7 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



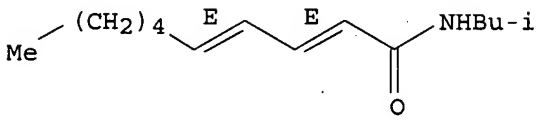
L12 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:406459 CAPLUS <<LOGINID::20070913>>
DOCUMENT NUMBER: 95:6459
TITLE: (Allylthio)acetate dianion as a new and convenient reagent for the stereoselective synthesis of (2E,4E)dienoates from alkyl halides
AUTHOR(S): Tanaka, Kazuhiko; Terauchi, Makoto; Kaji, Aritsune
CORPORATE SOURCE: Fac. Sci., Kyoto Univ., Kyoto, 606, Japan
SOURCE: Chemistry Letters (1981), (3), 315-18
CODEN: CMLTAG; ISSN: 0366-7022
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 95:6459
AB Treatment of CH2:CHCH2SCH2CO2R (R = Me, Et, iso-Pr) with LiN(CHMe2)2 followed by the addition of EtCHMeLi produced a new dianion which reacted with a variety of alkyl halides exclusively at the allylic position. High regioselectivity of the allylic alkylation was realized in the case of CH2:CHCH2SCH2CO2Me dianion. A convenient and general method for the stereoselective synthesis of (2E,4E) dienoates from alkyl halides was developed.
IT 18836-52-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 18836-52-7 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



L12 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1980:470970 CAPLUS <<LOGINID::20070913>>
DOCUMENT NUMBER: 93:70970
TITLE: A new synthetic method for pellitorine
AUTHOR(S): Mandai, Tadakatsu; Gotoh, Jiso; Otera, Junzo; Kawada, Mikio
CORPORATE SOURCE: Okayama Univ. Sci., Okayama, 700, Japan
SOURCE: Chemistry Letters (1980), (3), 313-14
CODEN: CMLTAG; ISSN: 0366-7022
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In the stereoselective synthesis of (E,E)-Me(CH2)4(CH:CH)2CONHCH2CHMe2 (pellitorine), the elimination of AcOH from (E)-2-acetoxy-3-decenenitrile providing 2,4-decadienenitrile in a high yield was a key reaction.
IT 18836-52-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 18836-52-7 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



L12 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1979:574792 CAPLUS <<LOGINID::20070913>>
DOCUMENT NUMBER: 91:174792
TITLE: Syntheses of N-isobutyldeca-2(E),4(E)-dienamides and N-isobutyldodeca-2(E),4(E)-dienamides
AUTHOR(S): Sharma, S. D.; Aggarwal, R. C.; Soni, B. R.; Sharma, M. L.
CORPORATE SOURCE: Dep. Chem., Panjab Univ., Chandigarh, 160014, India
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1979), 18B(1), 81-2
CODEN: IJSBDB; ISSN: 0376-4699
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 91:174792

AB Modified Wittig reaction of (E)-(EtO)2P(O)CH2CH:CHCO2Et with hexanal and octanal gave the (E,E)-Me(CH2)n(CH:CH)2CO2Et (I, n = 2 or 4). The acids obtained after hydrolysis of I on subsequent amidation with isobutylamine furnished the title compds.

IT 18836-52-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 18836-52-7 CAPLUS
CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.